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AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/015,683

### **REMARKS**

In the present Amendment, claims 1 and 2 have been combined, and claim 2 has been cancelled. In addition, the expression "a difference in the depth of chemical etching" has been amended to "a difference in etching rate." Support for this amendment may be found, for example, at page 7, lines 2-10 of the specification. Upon entry of the amendments, which is respectfully requested, claims 1 and 3-11 will be pending.

Entry of the Amendment is respectfully requested along with reconsideration and review of the claims on the merits.

### ***Preliminary Matters***

Applicants appreciate that, on the Office Action Summary sheet, the Examiner has acknowledged Applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants also appreciate that the Examiner has returned an initialed and signed copy of the Form PTO/SB/08 A & B (modified) submitted to the Patent Office on April 26, 2002.

### ***Claim Rejections – 35 U.S.C. § 102***

Claims 1-11 are rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Applicants' admission on pages 3-4 of the specification regarding what is known in the art.

Applicants respectfully traverse.

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Applicants note that the Examiner gives no further details as to the reasons for the rejection. The specification at pages 3-4 only appears to give a description of the related art. Starting at page 5, Applicants have distinguished their claimed invention from the related art.

The specification on pages 3-4 indicates reference to JP-A-63-160010. Applicants concurrently submit an Information Disclosure Statement containing this reference and a partial translation thereof, including a translation of Claims 9 and 12, and the lower paragraph of page 51. Applicants understanding of Japanese Patent Laid-Open No. 160010/1988 (Asahi Glass Co., Ltd.) is as follows:

In Claim 9 thereof, a manufacturing process similar to the present invention is disclosed, i.e., Japanese Patent Laid-Open No. 160010/1988 discloses "a method of manufacturing a glass substrate for magnetic disks characterized by conducting a chemical surface treatment on a glass substrate after the formation of fine concavities and convexities on the surface of the glass substrate", wherein chemical etching is mentioned as an example of the chemical surface treatment.

The present invention differs from Japanese Patent Laid-Open No. 160010/1988 in the following aspects.

In the present invention, "a processing mark having a permanent strain is imparted in the circumferential direction". This processing mark differs from the concavo-convexo structure that serves as a texture, as is explained in detail at page 5, line 21, and thereafter of the present specification. Furthermore, in the present invention, the aimed concavities and convexities are

formed by making use of the difference in the chemical etching rate between the processed portions and the unprocessed portions.

Contrary to such process, Japanese Patent Laid-Open No. 160010/1988 "forms fine concavities and convexities by a mechanical process".

The fine concavities and convexities formed by the mechanical process have a structure that can solve the problems of CSS resistance and head sticking property by itself. When the shape of such concave-convex structure is formed in a glass substrate, which is a brittle material, cracks develop in the glass surface as pointed out in Japanese Patent Laid-Open No. 160010/1988. Even if chemical etching is applied to such glass substrate thereafter, concavities and convexities due to the difference in etching rate utilized in the present invention are not formed.

To be clear, the main purpose of such etching in JP 160010/1988 is to preferentially etch and eliminate minute crazes, cracks and the like. See the English translation of page 51 of JP 160010/1988, first paragraph.

As has been discussed heretofore, the present invention differs from Japanese Patent Laid-Open No. 160010/1988 in view of the matter that is mechanically formed in the surface of the glass substrate.

Furthermore, in order to clarify the Applicants' invention, Applicants have amended Claim 1 to incorporate the following limitation: "wherein the surface roughness is formed based on a difference in etching rate between the portion having the processing mark and the portion

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not having the processing mark.” Applicants submit that this amendment further supports the differences in Claim 1 from Japanese Patent Laid-Open No. 160010/1988.

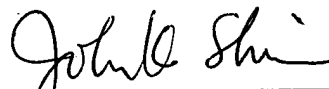
Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

*Conclusion*

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: July 3, 2003

**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

**Claim 2 is canceled.**

**The claims are amended as follows:**

1. (Amended) A process for producing a glass substrate for a magnetic recording medium by forming a surface roughness in a main surface of a glass plate that has been formed into a disk shape, which comprises:

imparting a processing mark having a permanent strain to the main surface of the glass plate in a circumferential direction thereof; and

chemically etching the whole main surface of the glass plate, so as to form the surface roughness,

wherein the surface roughness is formed based on a difference in etching rate between the portion having the processing mark and the portion not having the processing mark.